REMARKS

Claims 13-35, 37-41, and 48-53 are pending in the application.

Claims 48-51 are allowed. Claims 15, 16, 18, 25, and 37-38 contain allowable subject matter.

Independent Claim 29 has been rejected as anticipated by Lenney et al. (U.S. 5,881,645). Independent Claims 13, 30, 35, and 52 stand rejected as obvious over Weiss (U.S. 4,749,902) in view of Sekhar et al. (U.S. 6,455,107) and Sullivan (U.S. 3,867,166).

As amended, Claim 29 recites: "exposing the silica powder on the foil to a predetermined fusion temperature for less than about 4 seconds, whereby a silica coating is formed on the metallic foil." No new matter has been added. *See e.g.* ¶ 0047.

The Lenny et al. disclosure is directed to a method of thermally spraying a lithographic substrate with a particulate material. Lenny et al. do not disclose the recited fusion temperature. Withdrawal of the rejection and reconsideration of the claim is solicited.

No Motivation to Combine Weiss, Sekhar et al. and Sullivan

The Examiner's rejection of Claims 13, 30, 35, and 52 is based on an improper combination of the references Weiss, Sekhar et al. and Sullivan. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The proposed combination improperly requires combining the thin film process in Weiss to the thick film process of Sekhar et al. and Sullivan. However, as detailed below, the processes of Sekhar et al. and Sullivan would render Weiss unsatisfactory for its intended purpose. Thus, there is no motivation to combine, and the rejection is improper as a matter of law.

To provide an electrical path through a hermetic seal in a lamp, such as Weiss and the present invention, a central purpose is producing a gas tight seal. In achieving the purpose of maintaining seal, Weiss stresses that the solder glass layer must remain thin,

"Applying a greater quantity progressively interferes with the tightness of the melt, since the thickness of the resulting layer increases." (Col 2, ln 34-36). By way of illustration, ¶ 0006 of the present specification presents the largest typical foil (i.e. the base for the coating) thickness as *20 - 50 microns* at centerline and about *3 – 7 microns* at edge. Like Weiss, the present specification emphasizes the problems of thick coatings: "However, these prior art coatings are not desirable because the coatings are relatively thick . . ." (¶ 0010).

In contrast however, the coating in Sekhar et al. is thick: "The coatings of the invention are "thick" coatings, of the order of tens of micrometers thick . . ." (Col 2, ll. 9-11). The thicknesses are exemplified in Col 9, where "Example I" layer thickness is 500 microns and "Example III" coating thickness is 1100 microns. The proposed combination would place a Sekhar coating (500 – 1100 microns) on a base foil (3- 50 microns) giving a coating *10 to 366 times thicker* than the coated foil itself. In contrast, one generally expects a coating to be *thinner* than the base. The thick films in Sekhar et al. would make it impossible to form an electrical path through a hermetic seal in a lamp without destroying the tight seal emphasized by Weiss.

Although not necessary to consider, Sullivan also fails to be combinable with Weiss for the same reason. Sullivan, filed 1972, is directed to coating large surfaces of chemical vessels: "As the glass coating has particular application in coating large surfaces of chemical vessel or processing equipment..." (Col. 3, ll.19-21) *See also:* Col. 2, ll. 22-26. While the coating of Sullivan comprises a milled frit that includes small crystals (< 10 microns Col. 3, ll. 8-10), the overall milled frit is larger: "Generally, up to 85% of the milled frit particles will pass through a 200 mesh sieve." (Col. 4, ll. 10-13). The 200 mesh sieve is the standard used in the specification. *See*: Col. 5, ll. 41-43; Col. 6, ll. 18-20; Claim 10. By convention, a 200 mesh sieve has 200 openings per inch, i.e. openings every 127 microns. Even a 100 micron particle is *twice as thick* as the thickest point (50 microns) of a typical molybdenum foil passing through the hermetic seal in a lamp. Thus the coatings in Sullivan would be too large and make it impossible to form an electrical path through a hermetic seal in a lamp, as required by Weiss.

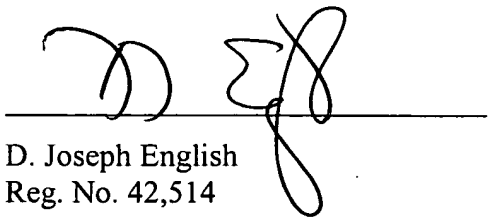
Either of the processes of Sekhar et al. or Sullivan would render Weiss unsatisfactory for its intended purpose, and thus either one makes the proposed combination improper. No motivation exists to combine the references and thus obviousness can not be established. *In re Gordon* 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The rejection is improper as a matter of law. Prompt withdrawal of the rejection and allowance of the claims is solicited.

The rejections of the independent claims 13, 29, 30, 35, and 52 are without merit. Obviousness has not been established and the references do not do not render the independent claims obvious. The claims depending therefrom are deemed patentable at least by virtue of their dependence, without regard to the further patentable limitations contained therein. Applicant requests prompt reconsideration and withdrawal of the rejections.

Applicant requests favorable consideration of new Claims 54-57. No new matter has been added.

A further and favorable action and allowance of all claims is solicited. A telephone interview with the undersigned is requested if there are any outstanding issues requiring attention.

Respectfully submitted,



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